

08-30-07

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Attorney's Docket No.: 21912-002009 / 1002H

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Marcus F. Boehm *et al.*
Serial No. : 08/141,496
Conf. No. : 7787
Filed : October 22, 1993
Title : **COMPOUNDS HAVING SELECTIVE ACTIVITY FOR RETINOID X RECEPTORS, AND MEANS FOR MODULATION OF PROCESSES MEDIATED BY RETINOID X RECEPTORS**

Art Unit : 1625
Examiner : Rita J. Desai
Cust. No. : 20985

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Dear Sir:

Transmitted herewith are a Supplemental Information Disclosure Statement, a copy of a U.S. Office Action, a copy of a Canadian Official Action, Forms PTO-1449 (8 pages), copies of cited non-US patent documents, a check in the amount of \$180.00, and a return postcard for filing in connection with the above-identified application.



The Commissioner is hereby authorized to charge any fee, including that submitted herewith if the attached check(s) is in the wrong amount or otherwise improper or missing, that may be due in connection with this and the attached papers, or with this application during its entire pendency, or to credit any overpayment to Deposit Account No. 06-1050. A duplicate of this sheet is enclosed.

Respectfully submitted,

Stephanie Seidman
Reg. No. 33,779

Attorney Docket No. 21912-002009 / 1002H

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CERTIFICATE OF MAILING BY "EXPRESS MAIL"

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Date of Deposit: August 28, 2007

I hereby certify that this paper is being deposited with the United States Postal "Express Mail Post Office to Addressee" Service under 37 CFR §1.10 on the date indicated above and is addressed to: Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA, 22313-1450.

Stephanie Seidman



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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT IN
ACCORDANCE WITH 37 C.F.R. §§ 1.97-1.98**

Because this Supplemental Information Disclosure Statement is filed after the receipt of a First Office Action on the Merits for the above-captioned application, a check for the filing fee of \$180.00 is enclosed. If no proper payment is enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1050.

In accordance with the duty of disclosure imposed by 37 C.F.R. §1.56 to inform the Patent Office of all information known by Applicant or Applicant's representative that may be material to the examination of the subject application, Applicant's representative hereby provides this Supplemental Information Disclosure Statement that is prepared in accordance with 37 C.F.R. §§1.97-1.98. Forms PTO-1449 (8 pages) and copies of the cited non U.S. Patent documents are provided herewith.

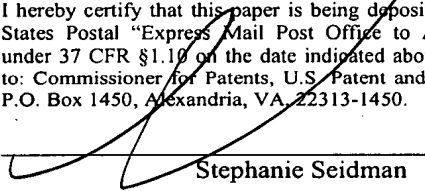
With the exception of items BX, BY, CA, and CG, the documents cited on the Form PTO-1449 are in the English language. French Patent Application No. FR 2293193 (item BX), which is in the French language, is provided with an English language equivalent,

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Stephanie Seidman

British Patent No. GB 1526410 (item BV). French Patent Application No. FR 2601670 (item CA), which is in the French language, is provided with an English language equivalent, US Patent No. 4,833,240 (item AK). German Patent Application No. DE 2505106 (item BY), which is in the German language, is provided with an English language equivalent, US Patent No. 4,272,547 (item AF). Bisagni *et al.* (item CG), which is in the French language, is provided with a Certified English language translation, item CL.

Applicant also makes known to the Examiner the following pending U.S., International and National Phase Applications that have one or more common inventors and/or are commonly owned:

<u>Docket No.</u>	<u>U.S.S.N.</u>	<u>Filed</u>	<u>Publ. No.</u>
21912-002007/1002F	08/141,246	10/22/93	n/a
21912-002017/1002P	11/300,039	12/13/05	2006-0106072
21912-003003/1059C	11/818,139	06/12/07	n/a
18202-005003/1028C	10/360,580	02/05/03	2004-0019072
18202-013002/1062B	10/238,363	09/09/02	2003-0186970
18202-013003/1062C	11/340,282	01/25/06	2007-0167445
18202-015003/1073C	11/165,769	06/23/05	2005-0288350
18202-017002/1081B	11/344,690	01/31/06	2006-0128740
18202-018002/1082B	11/601,251	11/17/06	2007-0072849
18202-020002/1088B	11/411,676	04/25/06	2006-0194827
18202-027US1/1110US	10/589,920	08/17/06	n/a
18202-028US1/1112US	10/590,119	06/11/07	n/a
18202-030US1/1111US	10/566,569	08/21/06	2007-0066650
18202-051RI1/1814RI	10/211,969	08/01/02	n/a
18202-068US1/1119US	11/883,247	07/26/07	n/a
18202-075P01/P1125	60/921,652	04/02/07	n/a
18202-072WO1/1123PC	PCT/US06/48784	12/21/06	2007/075884

In accordance with the requirements of 37 C.F.R. §1.98, the following documents are provided for consideration by the Examiner:

- 1) Copy of an Office Action, issued June 27, 2006, in connection with U.S. Patent Application Serial No. 08/141,246 (Attorney Docket No. 21912-002007 / 1002F); and
- 2) Copy of a Canadian Official Action, issued February 23, 2006, in connection with corresponding Canadian Patent Application No. 2133587 (Attorney Docket No. 21912-002CA5 / 1002DCA).

All art cited in the above Office Actions has been included on the accompanying Forms PTO-1449, and copies of non-U.S. patent documents are provided. The table below lists the Office Actions as documents 1 and 2 and includes a column that provides a space for the Examiner's initials next to each document to be considered.

Examiner's Initial	Document No.	Document Description
	1	Copy of an Office Action, issued June 27, 2006, in connection with U.S. Patent Application Serial No. 08/141,246
	2	Copy of a Canadian Official Action, issued February 23, 2006, in connection with corresponding Canadian Patent Application No. 2133587

Although these documents are made known to the Patent and Trademark Office in compliance with Applicant's duty of disclosure, such disclosure is not to be construed as an admission by Applicant or Applicant's representative that any of the documents or information, singly or in any combination thereof, is effective as prior art against the subject application. In accordance with 37 C.F.R. § 1.97 (g) and (h), the filing of this Supplemental Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(b) exists.

Applicant respectfully requests that the Examiner review the foregoing documents and that they be made of record in the file history of the above-captioned application.

In addition to the foregoing information and that provided in the accompanying Forms PTO-1449, Applicant also brings to the attention of the United States Patent and Trademark Office the following information and publications relating to the above-captioned application. Provided herewith are copies of the following publications that were published after the earliest claimed priority date of the instant application: Dawson (2004) *Curr. Med. Chem. Anti-Cancer Agents* 4:199-230 (Item CN) and Dawson and Zhang (2002) *Curr. Med. Chem.* 9:623-637 (Item CO). These publications include Marcia Dawson, Ph.D. as an author and refer to a collaboration between her and scientists at Ligand Pharmaceuticals, Inc., the assignee of the instant application.

It is the undersigned attorney's understanding that from about 1990 to about 1992, Marcia Dawson, who was then affiliated with SRI International, was involved in a scientific collaboration with inventors listed on the instant application. This collaboration involved transfer and evaluation of retinoid-related compounds, including bridged bicyclic aromatic compounds. On November 25, 1992, approximately seven months after the filing date of the application to which the instant application claims priority, Marcia Dawson and others filed a U.S. patent application (no. 07/982,305) which issued as U.S. Patent No. 5,466,861 (listed in the accompanying PTO Form 1449). The inventors listed in that application, which was initially assigned to SRI International and La Jolla Cancer Research Foundation (now The Burnham Institute), did not include any of the inventors listed in the instant application. A

Applicant : Marcus F. Boehm *et al.*
Serial No. : 08/141,496
Filed : October 22, 1993

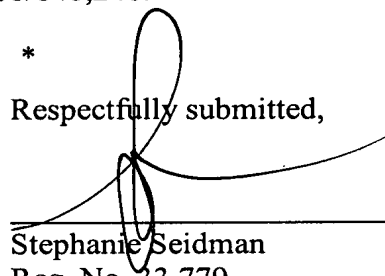
Attorney's Docket No.: 21912-002009 / 1002H
Supplemental Information Disclosure Statement

divisional application (U.S. Patent Application No. 08/448,991; issued as U.S. Patent No. 5,837,725 and listed in the accompanying PTO Form 1449) also was filed by Marcia Dawson and others, and this application did not include as inventors any of the inventors listed on the instant application.

An Interference was declared with respect to the original claims in the instant application and claims in these Dawson *et al.* patents (Interference no. 105,256). In a decision in the Interference (see the Official Gazette of the U.S. Patent and Trademark Office dated May 31, 2005), it was determined that junior party Dawson *et al.* is not entitled claims 1, 3, 4, 6, 7 and 13 of U.S. Patent No. 5,466,861 and claims 1, 2, 3, 5, 7 13, 14 and 15 of U.S. Patent No. 5,837,725. Both of these Dawson *et al.* patents subsequently were assigned to Ligand Pharmaceuticals, Inc. The claims in interference no longer are pending in this application; they are pending in co-pending application Ser. No. 08/141,246.

* * *

Respectfully submitted,



Stephanie Seidman
Reg. No. 33,779

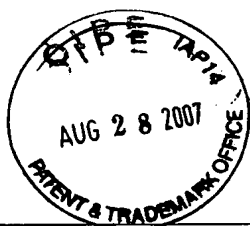
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Sheet 1 of 8

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 21912-002009/1002H	Application No. 08/141,496
List of Patents and Publications for Applicant's Information Disclosure Statement (37 CFR §1.98(b))		Applicant Marcus F. Boehm <i>et al.</i>	
		Filing Date October 22, 1993	Group Art Unit 1625

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	4,002,631	01/11/77	Miyazawa et al.	546	116	07/24/74
	AB	4,025,552	05/24/77	Orzalesi	514	571	01/13/75
	AC	4,105,681	08/08/78	Bollaga et al.	554	111	08/13/76
	AD	4,193,931	03/18/80	Loeliger	514	510	04/24/78
	AE	4,215,215	07/29/80	Bollag et al.	544	176	07/06/79
	AF	4,272,547	06/09/81	Haas et al.	424	311	08/18/77
	AG	4,534,979	08/13/85	Loev et al.	514	529	11/02/84
	AH	4,539,154	09/03/85	Krebs	260	999.999	06/15/83
	AI	4,780,251	10/25/88	Aig et al.	554	220	10/23/86
	AJ	4,783,549	11/08/88	Lang et al.	560	104	09/04/85
	AK	4,833,240	05/23/89	Maignan et al.	536	55.2	07/17/87
	AL	4,833,254	05/23/89	Berlin et al.	548	454	05/11/87
	AM	4,879,284	11/07/89	Land et al.	514	237.5	12/05/86
	AN	4,892,940	01/09/90	Maignan et al.	536	58	05/22/87
	AO	4,898,864	02/06/90	Maignan et al.	514	237.5	10/27/87
	AP	4,977,276	12/11/90	Berlin et al.	549	52	12/28/89
	AQ	5,149,705	09/22/92	Chandraratna	514	356	03/13/87
	AR	5,192,534	03/09/93	Grollier et al.	424	59	02/13/92
	AS	5,198,567	03/30/93	Lang et al.	560	56	07/23/91
	AT	5,219,888	06/15/93	Katocs Jr. et al.	514	560	03/31/92
	AU	5,272,146	12/21/93	Haugwitz et al.	514	232.8	10/02/92
	AV	5,304,575	04/19/94	Beck	514	563	12/17/92
	AW	5,391,766	02/21/95	Klaus et al.	549	23	05/05/93
	AX	5,428,071	06/27/95	Bollag et al.	514	559	02/24/84
	AY	5,455,265	10/03/95	Chandraratna	514	448	02/11/93
	AZ	5,466,861	11/14/95	Dawson et al.	560	100	11/25/92
	BA	5,508,456	04/16/96	Boehm	554	163	05/27/94

Examiner Signature	Date Considered
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 21912-002009/1002H	Application No. 08/141,496
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U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	BB	5,514,821	05/07/96	Bennani et al.	554	221	05/27/94
	BC	5,552,271	09/03/96	Pfahl et al.	435	6	11/25/92
	BD	5,567,855	10/22/96	White et al.	568	449	04/21/94
	BE	5,721,103	02/24/98	Boehm et al.	435	7.1	06/07/95
	BF	5,770,378	06/23/98	Hwang et al.	435	7.1	06/07/95
	BG	5,770,382	06/23/98	Hwang et al.	435	7.1	06/07/95
	BH	5,770,383	06/23/98	Hwang et al.	435	7.1	06/07/95
	BI	5,780,676	07/14/98	Boehm et al.	562	490	06/07/95
	BJ	5,837,725	11/17/98	Dawson et al.	514	467	05/24/95
	BK	5,932,622	08/03/99	Evans et al.	514	725	06/07/95
	BL	5,962,731	10/02/99	Boehm et al.	562	460	06/07/95
	BM	5,968,989	10/19/99	Evans et al.	514	725	06/07/95
	BN	5,998,654	12/07/99	Boehm et al.	560	45	07/25/97
	BO	6,028,052	02/22/00	Heyman et al.	514	3	09/17/96
	BP	6,043,279	03/28/00	Boehm et al.	514	568	02/12/97
	BQ	6,083,977	07/04/00	Boehm et al.	514	457	06/07/95
	BR	6,576,676	06/10/03	Evans et al.	514	725	07/09/99
	BS	6,610,883	08/26/03	Boehm et al.	562	490	07/13/98

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	BT	0284288	09/28/88	EP				
	BU	03/007950	01/30/03	PCT				
	BV	1526410	09/27/78	UK				
	BW	2188634	10/07/87	UK				
	BX	2293193	07/02/76	FR				X+
	BY	2505106	08/21/75	DE				X+

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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 21912-002009/1002H	Application No. 08/141,496
List of Patents and Publications for Applicant's Information Disclosure Statement (37 CFR §1.98(b))		Applicant Marcus F. Boehm <i>et al.</i>	
		Filing Date October 22, 1993	Group Art Unit 1625

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	BZ	253393	01/20/88	EP				
	CA	2601670	01/22/88	FR				X+
	CB	266992	05/11/88	EP				
	CC	93/11755	06/24/93	PCT				
	CD	93/15740	08/19/93	PCT				
	CE	93/21146	10/28/93	PCT				

X+ = An English language equivalent is provided.

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	CF	Allegretto et al., "Transactivation properties of retinoic acid and retinoid X receptors in mammalian cells and yeast. Correlation with hormone binding and effects of metabolism," J Biol Chem. 268(35):26625-33 (1993). Erratum in: J Biol Chem 269(10):7834 (1994)
	CG	Bisagni et al., "Partially hydrogenated derivatives of 7,12-dimethylbenz[a]anthracene. II. Different routes to 2-(1',2',3',4'-tetrahydro-5',8'-dimethyl-6'-naphthyl)cyclohexanone and syntheses of various other intermediates," Bulletin de la Societe Chimique de France, 8-9:3031-3038, (1970).
	CH	Boehm et al., "Design and synthesis of potent retinoid X receptor selective ligands that induce apoptosis in leukemia cells," J Med Chem. 38(16):3146-3155 (1995)
	CI	Boehm et al. "Synthesis and Structure-Activity Relationships of Novel Retinoid X Receptor-Selective Retinoids," Journal of Medicinal Chemistry 37(18):2930-2941 (1994)
	CJ	Boehm et al., "Synthesis of high specific activity [³ H]-9-cis-retinoic acid and its application for identifying retinoids with unusual binding properties," J Med Chem. 37(3):408-14 (1994)
	CK	Burnham Report, "Unlocking the mysteries of cells to improve human life," 1(1), Winter, (2003).
	CL	Certified English translation of: Bisagni et al., "Partially hydrogenated derivatives of 7,12-dimethylbenz[a]anthracene. II. Different routes to 2-(1',2',3',4'-tetrahydro-5',8'-dimethyl-6'-naphthyl)cyclohexanone and syntheses of various other intermediates," Bulletin de la Societe Chimique de France, 8-9:3031-3038, (1970).
	CM	Damm et al., "Functional inhibition of retinoic acid response by dominant negative retinoic acid receptor mutants," Proc Natl Acad Sci U S A. 90(7):2989-2993 (1993)
	CN	Dawson, "Synthetic retinoids and their nuclear receptors," Curr Med Chem Anticancer Agents, 4(3):199-230 (2004)
	CO	Dawson and Zhang, "Discovery and design of retinoic acid receptor and retinoid X receptor class- and subtype-selective synthetic analogs of all-trans-retinoic acid and 9-cis-retinoic acid," Curr Med Chem., 9(6):623-637 (2002)
	CP	Faisst et al., "Compilation of vertebrate-encoded transcription factors," Nucleic Acids Reseach 20(1):3-26 (1992)
	CQ	Freshney, "Culture of Animal Cells, A Manual of Basic Technique", Alan R. Liss, Inc., New York, p4 (1983)

Examiner Signature	Date Considered
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 21912-002009/1002H	Application No. 08/141,496
List of Patents and Publications for Applicant's Information Disclosure Statement (37 CFR §1.98(b))		Applicant Marcus F. Boehm <i>et al.</i>	
		Filing Date October 22, 1993	Group Art Unit 1625

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	CR	Graupner et al., "6'-substituted naphthalene-3-carboxylic acid analogs, a new class of retinoic acid receptor subtype-specific ligands," Biochemical and Biophysical Research Communications 179(3):1554-1561 (1991)
	CS	Gupta, et al., "Synthesis of polynuclear hydrocarbons with fused cyclopentane ring. II," Journal of the Indian Chemical Society, 30:805-808, (1954).
	CT	Hashimoto et al., "Expression of retinoic acid receptor genes and the ligand-binding selectivity of retinoic acid receptors," Chemical Abstracts 112(15): Abstract No. 136342b (1990)
	CU	Jones, B.A. and J.S. Bradshaw, "Synthesis and Reduction of Thiocarboxylic O-Esters," Chem. Rev. 84:17-30 (1984)
	CV	Kliwer et al., "Retinoid X receptor-COUP-TF interactions modulate retinoic acid signaling," Proc Natl Acad Sci U S A. 89(4):1448-1452 (1992)
	CW	Loeliger et al., "Arotinoids, a new class of highly active retinoids," European J. of Medicinal Chemistry 15(1):9-15 (1980)
	CX	Lotan, R. "Effects of vitamin A and its analogs (retinoids) on normal and neoplastic cells," Biochimica et Biophysica Acta, 605: 33-91 (1980)
	CY	Mangelsdorf et al., "Characterization of three RXR genes that mediate the action of 9-cis retinoic acid," Genes Dev. 6(3):329-344 (1992)
	CZ	Nadzan, A.M., "Chapter 13. Retinoids for the treatment of oncological diseases," Annual Reports in Medicinal Chemistry, 30: 119-128 (1995)
	DA	Nadzan et al., "Design of novel RXR selective retinoids," European Journal of Medicinal Chemistry, 30(Suppl.):519s-533s (1995)
	DB	Press Release 01/26/05: "Ligand Provides Update and Answers to Frequently Asked Questions on the Status of SPIRIT I & II Pivotal Studies of Targretin Capsules in Non-Small Cell Lung Cancer," http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=410&layout=-6&item_id=667166 (accessed on 04/08/05)
	DC	Press Release 03/14/05: "Ligand and SRI/Burnham Agree to Settle Patent Interference on Targretin; Ligand Strengthens Targretin Patent Protection and Lowers Royalty Rate," http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=410&layout=-6&item_id=684924 (accessed on 04/08/05)
	DD	Press Release 03/28/05: "Targretin Fails to Meet Primary or Secondary Endpoints in Pivotal Trials for Front-Line Non-Small Cell Lung Cancer," http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=410&layout=-6&item_id=689144 (accessed on 04/08/05)
	DE	Press Release 03/31/04: "Ligand Updates SPIRIT I and II Pivotal Studies of Targretin Capsules in Lung Cancer; Final Statistical Plan Agreed With FDA Shifts Survival Data Availability for Both Studies to 1Q05," http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=510199 (accessed on 04/08/05)
	DF	Press Release 06/07/04: "Ligand and Investigators Present Exciting Scientific and Clinical Data Updates for Oncology Products Targretin and ONTAK at ASCO Meeting," http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=410&layout=-6&item_id=579100 (accessed on 04/08/05)

Examiner Signature	Date Considered
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				Filing Date October 22, 1993		Group Art Unit 1625	
Other Documents (include Author, Title, Date, and Place of Publication)							
Examiner Initial	Desig. ID	Document					
	DG	Press Release 03/29/04: "New Findings Presented at AACR Show Ligand's Targretin Synergizes with Chemotherapeutic Agents to Arrest NSCLC Growth and Prevents or Reverses Acquired Paclitaxel and Taxol Resistance in NSCLC and Advanced Breast Cancer," http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=509239 (accessed on 04/08/05)					
	DH	Press Release 09/18/03: Ligand Completes Patient Enrollment in Second Pivotal Study of Targretin Capsules in Lung Cancer One Quarter Ahead of Schedule http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=450284 (accessed on 04/08/05)					
	DI	Press Release 08/14/03: Ligand Completes Patient Enrollment in First Pivotal Study of Targretin-R Capsules in Lung Cancer Ahead of Schedule http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=441327 (accessed on 04/08/05)					
	DJ	Press Release 04/08/03: Ligand's Targretin Combined With Taxol Prevents and Overcomes Acquired Taxol Resistance in Vitro and in Vivo, Preclinical Breast Cancer Studies Demonstrate http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=399343 (accessed on 04/08/05)					
	DK	Press Release 03/24/03: Four Clinical Trials Presented at AAD Show Ligand's Targretin, Panretin Demonstrate Promising Activity in Range of Dermatologic Disorders http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=393903 (accessed on 04/08/05)					
	DL	Press Release 02/20/03: Ligand's Targretin Gel Shows Promise for Chronic Severe Hand Dermatitis Patients http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=384737 (accessed on 04/08/05)					
	DM	Press Release 12/09/02: Ligand's Targretin Prevents Development of Mammary Tumors in Pre-Clinical Study of ER-Negative Breast Cancer, Journal Article Reports http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=362558 (accessed on 04/08/05)					
	DN	Press Release 09/05/02: Ligand's Targretin Gel Shows Promise for Many Chronic Severe Hand Dermatitis Patients http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=331693 (accessed on 04/08/05)					
	DO	Press Release 08/29/02: Targretin Increases Susceptibility of Leukemic B- and T-Cells to ONTAK, In Vitro Study of Ligand Products Published in the Journal Blood Demonstrates http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=330013 (accessed on 04/08/05)					
	DP	Press Release 05/20/02: Clinical Studies of Targretin Capsules and ONTAK Presented at ASCO Underscore Potential of Ligand Drugs to Treat Lung Cancer, Chronic Lymphocytic Leukemia http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=298548 (accessed on 04/08/05)					

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 21912-002009/1002H	Application No. 08/141,496
List of Patents and Publications for Applicant's Information Disclosure Statement (37 CFR §1.98(b))		Applicant Marcus F. Boehm <i>et al.</i>	
		Filing Date October 22, 1993	Group Art Unit 1625

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	DQ	Press Release 05/17/02: Treatment With Targretin-R- -Bexarotene- Reduces Cell Proliferation in Psoriatic Skin, One of Several Ligand-Related Studies Presented at SID Demonstrates http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=297850 (accessed on 04/08/05)
	DR	Press Release 02/28/02: Targretin Gel Achieved 86% Response Rate in Early-Stage CTCL Patients Treated for More Than One Year, Researchers Report At AAD Meeting http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=264329 (accessed on 04/08/05)
	DS	Press Release 12/11/01: Highlights from Nine Ligand-Related Abstracts at American Society of Hematology Meeting http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=235532 (accessed on 04/08/05)
	DT	Press Release 10/30/01: Ligand Pharmaceuticals Recognized by Cure for Lymphoma Foundation for Contributions to Lymphoma Education, Research and Treatment http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=221914 (accessed on 04/08/05)
	DU	Press Release 05/15/01: Targretin Capsules in Combination Therapy May Prolong Survival in Patients with Non-Small Cell Lung Cancer; Data from Phase I-II Trials Published in The Journal of Clinical Oncology http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=176069 (accessed on 04/08/05)
	DV	Press Release 05/14/01: Targretin Capsules May Improve Survival in Patients with Advanced Renal Cell Cancer; Combination Therapy May Delay Disease Progression http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=175607 (accessed on 04/08/05)
	DW	Press Release 03/19/01: Ligand Provides Targretin Registration/Clinical Data Update in Non-Small Cell Lung Cancer, Breast Cancer and Psoriasis http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=159844 (accessed on 04/08/05)
	DX	Press Release 12/05/00: Ligand's ONTAK in Combination With Steroids Doubled Overall Response Rate In CTCL; Three Posters on ONTAK and Targretin at American Society of Hematology Meeting http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=136953 (accessed on 04/08/05)
	DY	Press Release 11/20/00: Ligand's Targretin Capsules Recommended for Approval by European CPMP; Second Product for Ligand Europe Commercialization http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=134039 (accessed on 04/08/05)
	DZ	Press Release 11/08/00: Ligand's Targretin May Extend Survival in Lung Cancer Patients; Data Reported at the NCI-EORTC-AACR Meeting http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130921 (accessed on 04/08/05)

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	EA	Press Release 08/29/00: Data Suggest Targretin Capsules May Improve Effectiveness of ONTAK Through Upregulation of IL-2 Receptor http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130865 (accessed on 04/08/05)			
	EB	Press Release 08/14/00: Targretin--R-- Capsules May Increase Survival in Patients with Non-Small Cell Lung Cancer; Follow-Up Results of Clinical Studies Support FDA Dialogue/Phase III Program http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130859 (accessed on 04/08/05)			
	EC	Press Release 06/29/00: Ligand Receives FDA Marketing Clearance for Targretin Gel; Approval Adds Fourth Product to Ligand's Specialty Oncology Products Business http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130843 (accessed on 04/08/05)			
	ED	Press Release 06/12/00: Ligand Receives Approvable Letter from FDA for Targretin Gel; Approval Would Mark Fourth Product Approval for Ligand in Past 18 Months http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130842 (accessed on 04/08/05)			
	EE	Press Release 05/23/00: Targretin Capsules Shows Activity in Clinical Trials in Patients with Non-Small Cell Lung Cancer and Cutaneous T-Cell Lymphoma http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130837 (accessed on 04/08/05)			
	EF	Press Release 05/09/00: Clinical Trial Results of Targretin(R) Gel in Early-Stage CTCL To Be Presented at SID Annual Meeting http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130793 (accessed on 04/08/05)			
	EG	Press Release 05/03/00: Targretin(R) Capsules Show Positive Results in Moderate to Severe Plaque Psoriasis; Targretin Capsules Also Effective in Treating All Stages Of CTCL http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130792 (accessed on 04/08/05)			
	EH	Press Release 03/13/00: Targretin Capsules Benefit Patients with All Stages of Cutaneous T-Cell Lymphoma; Results of Phase III Trials Presented at American Academy of Dermatology Meeting http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130790 (accessed on 04/08/05)			
	EI	Press Release 03/09/00: Ligand Reports 1999 Results; Ends Year With Three FDA Product Approvals and Cash of \$49.2 Million http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130788 (accessed on 04/08/05)			
	EJ	Press Release 02/18/00: Ligand Presents Data on Novel RXR Homodimer Antagonist Compound with Potential Utility in Diabetes and Obesity http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130786 (accessed on 04/08/05)			
	EK	Press Release 02/07/00: FDA Grants Priority Review for Ligand's Targretin Gel NDA http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130784 (accessed on 04/08/05)			

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	EL	Press Release 01/06/00: Ligand and Alfa Wassermann Enter Into Marketing and Distribution Agreement for Italy for Ontak, Targretin and Panretin http://www.corporate-ir.net/ireye/ir_site.zhtml?ticker=LGND&script=460&layout=-6&item_id=130779 (accessed on 04/08/05)					
	EM	Rakto et al., "Chemopreventive efficacy of combined retinoid and tamoxifen treatment following surgical excision of a primary mammary cancer in femal rats," Cancer Res. 49(16):4472-4476 (1989)					
	EN	Sof'ina et al., "Experimental Evaluation of Antitumor Drugs in the USA and USSR and Clinical Correlations", NCL Monograph 55, NIH Publication No. 80-1933, pp 76-78 (1980)					
	EO	Spruce et al., "Heteroarotinoids. Synthesis, Characterization, and Biological Activity in Terms of an Assessment of These Systems To Inhibit the Induction of Ornithine Decarboxylase Activity and To Induce Terminal Differentiation of HL-60 Cells," J. Med. Chem. 30: 1474-1482 (1987)					
	EP	Strandtmann et al., "Reaction of Cyclic beta-diketones with 3,4-Dihydroisoquinolines and Related Compounds. Preparation and Anticancer Activity of 2-Substituted 1,3-Cyclohexanediones", J. Med. Chem. 10(6):1063-1065 (1967).					
	EQ	van der Leede et al., "Retinoic Acid Receptor and Retinoid X Receptor Expression in Retinoic Acid-Resistant Human Tumor Cell Lines," Molecular Carcinogenesis. 8:112-122 (1993).					
	ER	Zhang et al., "Discovery of Novel Retinoic Acid Receptor Agonists Having Potent Antiproliferative Activity in Cervical Cancer Cells", J. Med. Chem. 39(14):2659-2663 (1996).					

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